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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,281	11/16/2001	Karl Schroedinger	M&N-IT255	7051

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EXAMINER

NGUYEN, LINH M

ART UNIT PAPER NUMBER

2816

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/992,281

Applicant(s)

SCHROEDINGER, KARL

Examiner

Linh M. Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This is a reply to the Applicant's amendment submitted on 12/11/2003. According to this amendment, claims 1-10 are withdrawn; claims 15-17 are canceled; thus, claims 11-14 are now presented in this instant application.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Fischer (U.S. Pub. No. 2002/0067195).

With respect to claim 14, Fischer discloses, in Figures 1 and 2a-b, and paragraphs [0014], [0019] and [0020], a phase shifter for producing an output signal comprising a circuit for receiving an input signal [10] having a phase and for producing an output [40] having a phase; the circuit designed for changing a phase regulation direction of the phase shifter at predetermined switching points based on an input signal ([0014], [0019], [0020]), the changing over of the phase regulation direction being performed with a hysteresis behavior.

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drost et al. in view of Fischer (U.S. Pub. No. 2002/0067195).

With respect to claims 11-12 and corresponding method claim 13, Drost et al. discloses a control loop, in combination with a delay locked loop circuit, comprising a) a phase shifter [230] for producing an output [intclk] with a first clock phase, b) phase detector [210] for detecting a phase difference between a second clock phase of a data signal and the first clock phase, the phase detector producing an output signal based on the detected phase difference; c) a charge pump [220] for integrating the output signal of the phase detector, the charge pump producing a regulation signal for the phase shifter.

Drost et al. fails to disclose that the phase shifter changing over a phase regulation direction at predetermined switching points based on regulation signal; the changing over of the phase regulation direction being performed with a hysteresis behavior.

Fischer discloses, in Figures 1 and 2a-b, and paragraphs [0014], [0019] and [0020], a phase shifter for producing an output signal comprising a circuit for receiving an input signal [10] having a phase and for producing an output [40] having a phase; the circuit designed for changing a phase regulation direction of the phase shifter at predetermined switching points

Art Unit: 2816

based on an input signal ([0014], [0019], [0020]), the changing over of the phase regulation direction being performed with a hysteresis behavior.

To configure the control loop of Drost et al. with a phase shifter as taught by Fischer for adjusting the phase of an output signal while maintaining the symmetry of the input signal would have been obvious to one of ordinary skill in the art at the time of the invention since Fischer's phase shifter is capable of producing an output signal shifted in phase from the input signal with the same duty cycle as the input signal (*see Fischer, [0001] and [0004]*).

#### ***Remarks and Conclusion***

5. With respect to claims 11-13, the allowability stated in the previous office action has been withdrawn due to newly found prior arts to Drost et al. and Fischer.

#### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (571) 272-1749. The examiner can normally be reached on Alternate Mon, Tuesday - Friday from 7:00 to 4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2816

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh M. Nguyen  
Examiner  
Art Unit 2816

LMN

A handwritten signature in cursive script, appearing to read 'Linh M. Nguyen', with a long horizontal flourish extending to the right.